



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,570	07/03/2003	Gerry Quinn	P/3771-6	5459

2352 7590 04/21/2006

OSTROLENK FABER GERB & SOFFEN  
1180 AVENUE OF THE AMERICAS  
NEW YORK, NY 100368403

EXAMINER
----------

SPAHN, GAY

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/613,570	<b>Applicant(s)</b> QUINN, GERRY	
	<b>Examiner</b> Gay Ann Spahn	<b>Art Unit</b> 3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-17 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

The drawings are objected to because:

the meaning of the arrowheads in Figs. 1-5 is not clear. See 37 C.F.R. § 1.84(r)

wherein it states:

(r) Arrows.

**Arrows may be used at the ends of lines, provided that their meaning is clear, as follows:**

- (1) On a lead line, a freestanding arrow to indicate the entire section towards which it points;
- (2) On a lead line, an arrow touching a line to indicate the surface shown by the line looking along the direction of the arrow; or
- (3) To show the direction of movement. (Emphasis Added).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

Art Unit: 3673

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In the Amendment/Submission filed by fax on 30 January 2006, Applicant traverses the examiner's objection to the drawings and argues that arrowheads are clear and that the examiner has not given a single example of unclearness. The examiner notes that she is not required to give examples of unclearness, but that Applicant is required to comply with 37 CFR 1.84(r) and that many of the arrowheads shown in Figs. 1-5 do not appear to comply with any of paragraphs (1)-(3) of 37 CFR 1.84(r). For instance, while it may be okay to leave the arrowheads for the first and second arrays of seabed transponders in Fig. 2 since they appear to "indicate the entire section towards which it points," this does not appear to be the case for all of the other arrowheads in Fig. 2 with respect to "target position", "pipelay route", "intermediate seabed transponder", and "centerline".

The drawings are objected to because:

(1) Figs. 1-5 fail to comply with 37 CFR 1.84(o), entitled "Legends," which states in pertinent part, as follows:

Suitable descriptive legends may be used subject to approval by the Office, or may be required by the examiner where necessary for understanding of the drawing. They should contain as few words as possible.

The examiner notes that the legends, such as "Target Position", "First Array of Seabed Transponder", "Pipelay Route", "Intermediate Seabed Transponder (Optional)"

etc. should be changed to reference numerals and referred to in the specification with the reference numerals.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The abstract of the disclosure is objected to because the second sentence beginning "A first seabed transponder . . ." on lines 2 to 3 of the Abstract is a long run-on sentence containing numerous semi-colons (i.e., similar to claim language format)

and should be rewritten as separate sentences (i.e., the Abstract should be in narrative form). Correction is required. See MPEP § 608.01(b).

In the Amendment/Submission filed by fax on 30 January 2006, Applicant traverses the examiner's objection to the abstract and argues that "[t]here is no objection to semicolons and no maximum sentence length prescribed in M.P.E.P. 608.01(b)." The Manual Of Patent Examining Procedure (MPEP) § 608.01(b)(C), entitled "Language and Format," states that the abstract should be in narrative form. The present abstract is NOT in narrative form and therefore, does not comply with (MPEP) § 608.01(b)(C).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 11, 13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Applicant's admitted prior art described on page 1, paragraph no. [0004] through page 4, paragraph no. [0018] and illustrated in prior art Figs. 1-3 (hereinafter referred to as "Applicant's admitted prior art").**

**As to claim 11, Applicant's admitted prior art discloses a method for offshore pipeline laying (Figs. 1-3), wherein the pipeline (shown as having length "L") is being**

laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, said method establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing first and second seabed transponders (any seabed transponder of the first array and any seabed transponder of the second array) along the pipelay route (the examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be “along the pipelay route”), the first seabed transponder being near said second position (the examiner deems any of the seabed transponders in the first array to be sufficiently close to the target position so as to be considered to be “near said second position”);

determining the distance separating said first and second seabed transponders (see paragraph no. [0014]);

installing a pipe transponder on said pipeline (see Fig. 3 wherein squares denote pipe transponders); and

interrogating said second seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the seabed transponders are arranged sufficiently near the pipelay route centerline (the examiner deems any of the seabed transponders in the first array as being “sufficiently near the pipelay route”) so that the respective distances separating said second seabed transponders and said pipe transponder can be used to establish

Art Unit: 3673

the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

**As to claim 13,** Applicant's admitted prior art discloses the method of claim 11 as discussed above, and Applicant's admitted prior art further comprises the steps of:

installing a third seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be "along the pipelay route");

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and

interrogating said third seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

**As to claim 15,** Applicant's admitted prior art discloses a method for offshore pipeline laying (Figs. 1-3), wherein the pipeline (shown as having length "L") is being laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, said method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

Art Unit: 3673

installing a seabed transponder (any seabed transponder of the first or second arrays) along the pipelay route (the examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be “along the pipelay route”);

installing a pipe transponder (see Fig. 3 wherein squares denote pipe transponders) on said pipeline (shown as having length “L”); and

interrogating said seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the seabed transponder is arranged sufficiently near the pipelay route centerline (the examiner deems any of the seabed transponders in the first array as being “sufficiently near the pipelay route”) so that the respective distance separating said seabed transponder and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position on the seabed (see paragraph nos. [0016] and [0017]).

**As to claim 17, Applicant’s admitted prior art** discloses the method of claim 15 as discussed above, and Applicant’s admitted prior art further comprises the steps of:

installing another seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be “along the pipelay route”);

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length “L”) near said first pipe transponder; and

interrogating said other seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art described on page 1, paragraph no. [0004] through page 4, paragraph no. [0018] and illustrated in prior art Figs. 1-3 (hereinafter referred to as "Applicant's admitted prior art") in view of Kolb (U.S. Patent No. 3,576,977).**

**As to claim 1, Applicant's admitted prior art discloses that a method for offshore pipeline laying (Figs. 1-3), the pipeline (shown as having catenary length "L") is laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed for making a connection at said second**

Art Unit: 3673

position to a subsea structure, and presenting a catenary length between the seabed and the laying vessel (shown unnumbered at top of Figs. 1 and 3), said method establishing the length of pipeline (shown as having length "L") required to be provided from the vessel (shown unnumbered at top of Figs. 1 and 3) to reach the second position (target position) on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing a first seabed transponder (any transponder of first array) near the pipelay route centerline at the second position (target position);

installing a second seabed transponder (any transponder of second array) near the pipelay route centerline spaced upstream from the first seabed transponder at a distance (see Fig. 2) greater than the catenary length (L) of the pipeline;

establishing the positions of the first and second seabed transponders so as to determine the exact distance separating said first and second seabed transponders (see paragraph no. [0014]);

attaching a first pipe transponder (the squares in Fig. 3 represent pipe transponders) on the pipeline (shown as having catenary length "L") and laying the pipeline at the first position so that it will land close to the second seabed transponder (see Fig. 3);

interrogating the second seabed transponder and the first pipe transponder in a relative mode to establish the exact distance between them (see paragraph no. [0015]);

comparing the established distance with the distance separating the first and second seabed transponders to calculate the remaining length of pipeline required to reach the second position (see paragraph no. [0016]);

cutting the pipeline according to said remaining length (see paragraph no. [0017]);

welding the connector to the pipeline (see paragraph no. [0017]); and thereby laying the pipeline to the second position with the connector being at the second position (see paragraph no. [0017]).

However, Applicant's admitted prior art fails to explicitly disclose installing a first and second seabed transponder on the pipelay route centerline.

Kolb discloses the step of installing transponders on the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for cutting undersea pipeline to length of Applicant's admitted prior art by placing the seabed transponders on the centerline of the pipelay route as taught by Kolb in order to minimize the stress on the pipeline and the pipe support structure.

**As to claim 2,** Applicant's admitted prior art in view of Kolb discloses the method of claim 1 as discussed above.

Applicant's admitted prior art in view of Kolb fails to explicitly disclose that the distance (D') is comprised between (L + 300 ft) and (L + 700 ft).

However, it is well settled that improvement resulting from a change in size, proportion or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention. See *The Ward Machinery Company v. Wm. Staley Machinery Corporation*, 192 USPQ 505 (DC Md 1976).

Therefore, the examiner deems that it would have been an obvious expedient for one of ordinary skill in the art at the time the invention was made to have modified the method for cutting undersea pipeline to length resulting from Applicant's admitted prior art in view of Kolb by making the distance (D') between the first and second seabed transponders be between 300 to 700 feet greater than the catenary length (L) of the pipeline.

As to claim 3, Applicant's admitted prior art in view of Kolb discloses the method of claim 1 as discussed above, and Applicant's admitted prior art also disclose that a third seabed transponder is arranged on the pipelay route upstream from the second seabed transponder (the second array of seabed transponders shows numerous seabed transponders and the examiner deems the second seabed transponder to be one of the transponders in the second array that is closest to the first array and the third seabed transponder to be one of the transponders in the second array that is farthest from the first array so that the third seabed transponder is upstream of the second seabed transponder).

**As to claim 4,** Applicant's admitted prior art in view of Kolb discloses the method of claim 3 as discussed above, and Applicant's admitted prior art also discloses that a second pipe transponder is attached to the pipeline upstream from the first pipeline transponder (Fig. 3 shows three pipe transponders with a second being upstream of a first).

**As to claim 5,** Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above, and Applicant's admitted prior art also discloses that the distance between the first and second pipe transponders is shorter than the distance between the second and third seabed transponders (see Fig. 3).

**As to claim 6,** Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above, and Applicant's admitted prior art also discloses that the pipeline is laid so that the first and second pipe transponders are laid in between the second and third seabed transponders (see Fig. 3).

**As to claim 7,** Applicant's admitted prior art in view of Kolb discloses the method of claim 1 as discussed above, and Applicant's admitted prior art also discloses that another pipe transponder is attached to the pipeline to help the positioning of the connector at the second position (see paragraph no. [0017]).

**As to claim 8,** Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above.

Applicant's admitted prior art in view of Kolb fails to explicitly disclose that the second and third seabed transponders are spaced about 500 feet apart.

However, it is well settled that improvement resulting from a change in size, proportion or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention. See *The Ward Machinery Company v. Wm. Staley Machinery Corporation*, 192 USPQ 505 (DC Md 1976).

Therefore, the examiner deems that it would have been an obvious expedient for one of ordinary skill in the art at the time the invention was made to have modified the method for cutting undersea pipeline to length resulting from Applicant's admitted prior art in view of Kolb by making the second and third seabed transponders be spaced about 500 feet apart.

**As to claim 9**, Applicant's admitted prior art in view of Kolb discloses the method of claim 8 as discussed above.

Applicant's admitted prior art in view of Kolb fails to explicitly disclose that the first and second pipeline transponders are spaced about 300 feet apart.

However, it is well settled that improvement resulting from a change in size, proportion or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention. See *The Ward Machinery Company v. Wm. Staley Machinery Corporation*, 192 USPQ 505 (DC Md 1976).

Therefore, the examiner deems that it would have been an obvious expedient for one of ordinary skill in the art at the time the invention was made to have modified the method for cutting undersea pipeline to length resulting from Applicant's admitted prior art in view of Kolb by making the first and second pipeline transponders be spaced about 300 feet apart.

**As to claim 10,** Applicant's admitted prior art in view of Kolb discloses the method of claim 9 as discussed above, and Applicant's admitted prior art in view of Kolb also discloses that the pipeline is laid so that the first and second pipe transponders are laid in between the second and third seabed transponders (see Fig. 3 - the second array of seabed transponders shows numerous seabed transponders and the examiner deems the second seabed transponder to be one of the transponders in the second array that is closest to the first array and the third seabed transponder to be one of the transponders in the second array that is farthest from the first array so that the first and second pipe transponders are between the second and third seabed transponders).

**As to claim 14,** Applicant's admitted prior art in view of Kolb discloses the method of claim 4 as discussed above, and Applicant's admitted prior art also discloses that a third pipe transponder is attached to the pipeline to help the positioning of the connector at the second position (see paragraph no. [0017]).

**As to claim 11,** Applicant's admitted prior art discloses a method for offshore pipeline laying (Figs. 1-3), wherein pipeline (shown as having length "L") is being laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, said method establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing first and second seabed transponders (any seabed transponder of the first array and any seabed transponder of the second array) along the pipelay route (the

examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be “along the pipelay route”), the first seabed transponder being near said second position (the examiner deems any of the seabed transponders in the first array to be sufficiently close to the target position so as to be considered to be “near said second position”);

determining the distance separating said first and second seabed transponders (see paragraph no. [0014]);

installing a pipe transponder on said pipeline (see Fig. 3 wherein squares denote pipe transponders); and

interrogating said second seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the respective distances separating said second seabed transponders and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

However, Applicant's admitted prior art may fail to explicitly disclose, depending upon how one of ordinary skill in the art would interpret “sufficiently near”, that the seabed transponders are arranged sufficiently near the pipelay route centerline.

Kolb discloses that the seabed transponders are arranged sufficiently near the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein “preplaced bottom mounted sonic marker beacons or transponders” are disclosed to be on the centerline of the pipelay route (12)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for cutting undersea pipeline to length of Applicant's admitted prior art by placing the seabed transponders on the centerline of the pipelay route as taught by Kolb in order to minimize the stress on the pipeline and the pipe support structure.

**As to claim 12,** Applicant's admitted prior art in view of Kolb discloses the method of claim 11 as discussed above, and Applicant's admitted prior art in view of Kolb discloses that the seabed transponders are arranged on the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein "preplaced bottom mounted sonic marker beacons or transponders" are disclosed to be on the centerline of the pipelay route (12)).

**As to claim 13,** Applicant's admitted prior art in view of Kolb discloses the method of claim 11 as discussed above, and Applicant's admitted prior art in view of Kolb further comprises the steps of:

installing a third seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be "along the pipelay route");

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and

interrogating said third seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the

remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

**As to claim 15,** Applicant's admitted prior art discloses a method for offshore pipeline laying (Figs. 1-3), wherein pipeline (shown as having length "L") is being laid on the seabed (bottom of Figs. 1 and 3 and Fig. 2) by a surface laying vessel (shown unnumbered at top of Figs. 1 and 3) from a first position (TDP) on the seabed to a second position (target position) on the seabed, said method for establishing the length of pipeline required to be provided from the vessel to reach the second position on the seabed (see paragraph nos. [0016] and [0017]), said method comprising the steps of:

installing a seabed transponder (any seabed transponder of the first or second arrays) along the pipelay route (the examiner deems any of the seabed transponders in the first and second arrays to be located sufficiently close to the pipelay route to be considered to be "along the pipelay route");

installing a pipe transponder (see Fig. 3 wherein squares denote pipe transponders) on said pipeline (shown as having length "L"); and

interrogating said seabed transponder and said pipe transponder to determine the respective distance between them (see paragraph no. [0015]);

wherein the respective distance separating said seabed transponder and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position on the seabed (see paragraph nos. [0016] and [0017]).

However, Applicant's admitted prior art fails to explicitly disclose that the seabed transponders are arranged sufficiently near the pipelay route centerline.

Kolb discloses that the seabed transponders are arranged sufficiently near the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein “preplaced bottom mounted sonic marker beacons or transponders” are disclosed to be on the centerline of the pipelay route (12)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method for cutting undersea pipeline to length of Applicant's admitted prior art by placing the seabed transponders on the centerline of the pipelay route as taught by Kolb in order to minimize the stress on the pipeline and the pipe support structure.

**As to claim 16,** Applicant's admitted prior art in view of Kolb discloses the method of claim 15 as discussed above, and Applicant's admitted prior art in view of Kolb further discloses that the seabed transponder is arranged on the pipelay route centerline (see centerline of pipelay route (12) in Fig. 1 and col. 3, lines 13-36 and more particularly, lines 28-35 wherein “preplaced bottom mounted sonic marker beacons or transponders” are disclosed to be on the centerline of the pipelay route (12)).

**As to claim 17,** Applicant's admitted prior art in view of Kolb discloses the method of claim 15 as discussed above, and Applicant's admitted prior art in view of Kolb further comprises the steps of:

installing another seabed transponder (intermediate seabed transponder in Fig. 2) along the pipelay route (the examiner deems the intermediate seabed transponder to be sufficiently near the pipelay route to be considered to be “along the pipelay route”);

installing a second pipe transponder (any one of the three pipe transponders shown in Fig. 3 which has not been deemed the pipe transponder introduced in claim 11) on said pipeline (shown as having length "L") near said first pipe transponder; and interrogating said other seabed transponder and said second pipe transponder so as to determine the respective distance between them so as to further establish the remaining length of pipeline needed to reach the second position (see paragraph nos. [0016] and [0017]).

### ***Response to Arguments***

Applicant's arguments (see page 14 of the "Amendment/Submission filed 30 January 2006) with respect to the 35 U.S.C. §102(b) rejection of claims 12 and 16 as being anticipated by Applicant's Admitted Prior Art have been fully considered and are persuasive. The 35 U.S.C. §102(b) rejection of claims 12 and 16 has been withdrawn.

With respect to the 35 U.S.C. § 102(b) rejections of claims 11, 13, 15, and 17 and the 35 U.S.C. § 103(a) rejection of claims 1-17 as being unpatentable over Applicant's Admitted Prior Art in view of Kolb, Applicant's arguments filed 30 January 2006 have been fully considered but they are not persuasive.

With respect to the 35 U.S.C. § 102(b) rejection of claims 11-13 and 15-17, Applicant argues, as follows:

In the APA system, it is first necessary to determine the absolute positions of two seabed transponders per array in each of the two arrays. [0014] Three pipe transponders are attached to the pipe and their exact positions are found. To know the exact coordinates of a pipe transponder requires the use of at least [sic] two seabed transponders. [0015] After determining the exact positions of the pipe transponders, it is then

possible to determine the remaining length of flowline required to reach the target position by comparing the coordinates of the target position with the coordinates of the pipe transponders. [0016] Then the pipe can be cut.

In other words, the APA method is based on determining the exact positions (coordinates) of the pipe and seabed transponders for each pipe transponder, and is time-consuming. [0018]

In contrast the invention of independent claims 11 and 15 is not based on and does not require determining any exact transponder positions, but more simply is based on relative distances between transponders. The method requires only that the seabed transponders are arranged sufficiently near the pipelay route centerline so that the respective distances separating said second seabed transponders and said pipe transponder can be used to establish the remaining length of pipeline needed to reach the second position."

The APA method requires determining exact positions of multiple seabed transponders and request multiple pipe transponders. In contrast, for example, claim 15 explicitly recites the steps of "installing a seabed transponder..." and "installing a pipe transponder..."

The methods of claims 11 and 15 are both much simpler than the APA methods include steps and features that are not part of the APA method, and furthermore require less apparatus and less time.

A key feature that makes the methods possible is recited in the last paragraph of each independent claim, namely that the seabed transponders are sufficiently near the pipelay route centerline. . .". The APA does not teach or even suggest this feature. The APA teaches an array of multiple transponders that surround the pipelay route and there is no teaching that they should or even could be sufficiently near the centerline to enable the invention of claims 11 and 15.

Claims 12 and 16 recite more specifically that the seabed transponders) is/are arranged on the pipelay route centerline. The Examiner "deems" the seabed transponder to be both "sufficiently near" and "on" the pipelay route centerline. What the Examiner's "deems" is contradicted by both the figures and the text and lacks any prima facie basis in the facts of record.

The features of claims 13, 14 and 17 are neither disclosed nor suggested by the APA, for the reasons above, as well as because of the respective features recited in those claims.

For the foregoing reasons claims 11-17 are neither disclosed nor suggested by the APA.

The examiner notes that although Applicant has stated that the methods of independent claims 11 and 15 "include steps and features that are not part of the APA

method”, the Applicant has not pointed out any recitation in claims 11-17 that is not shown by Applicant’s Admitted Prior Art. Applicant states that a key feature that makes the invention possible is that “the seabed transponder is sufficiently near the pipelay route centerline.” However, the examiner notes that “sufficiently near” is, at best, a relative term. Indeed, the term “sufficiently near” is of such breadth as to read on Applicant’s Admitted Prior Art. Without more definition as to what “sufficiently near” means in the context of the claim language, the examiner is justified in deeming Applicant’s Admitted Prior Art to meet the recitation of “sufficiently near.” Further, the examiner notes that the term “sufficiently near” does not even appear in the specification and therefore, is not defined by either the specification or the drawing figures with sufficiency so as to be “contradicted by both the figures and the text” and lack “any prima facie basis in the facts of record” as alleged by Applicant.

With respect to the 35 U.S.C. § 103(a) rejection of claims 1-17 as being unpatentable over Applicant’s Admitted Prior Art of in view of Kolb, Applicant argues, as follows:

Claims 1-17 were rejected over the APA in view of Kolb.  
Reconsideration is requested.

To avoid unnecessary discussion reference is made to the foregoing discussion of claims 1 1-17, which applies equally to claim 1. The APA neither discloses nor suggests the features of these claims for the reasons already stated. Kolb adds nothing. Kolb describes a system and method for controlling the position of a seagoing vessel. It has nothing to do with a method for cutting an undersea pipe to length and discloses nothing relevant to the methods of claims 1,11 and 15. Even if the references were combined, the claim limitations would not be met. The result would be a combination of the APA method of cutting a pipeline, plus the Kolb method of controlling a vessel. Kolb neither discloses nor suggests making any modifications to the APA pipeline cutting method.

Art Unit: 3673

Regarding claims 2, 8 and 9, the Examiner admits that the APA and Kolb do not suggest these features. Allowance is therefore in order. Prior art rejections require evidence of the prior art. If it would have been obvious or routine for a skilled person to modify the other prior art and obtain the inventions of these claims, evidence of the ordinary level of skill is required. The Examiner "deems" the case of Ward Machinery Co. v. Wm. C. Staley Machinery Corp. to be a substitute for prior art with respect to these claims. In the Ward case, patent claims to box-making machinery were held to be invalid because the recited features were found to be similar to the prior art, although different in size, which in that context the court found to be an unpatentable difference. The Examiner has not explained why the pipe-laying method claimed here is analogous to box-making machinery, nor any reason why the Ward case has anything to say about the features of claims 2, 8 and 9. In the absence of prior art or an explanation of why claims 2, 8 and 9 are not entitled to examination for novelty and non-obviousness like any other claim, allowance is requested.

The examiner notes that Kolb is indeed pertinent to the present invention because Applicant's method for offshore pipeline laying like Kolb's method requires controlling the position of the seagoing vessel in order to control where the pipeline is laid.

With respect to the rejections of claims 2, 8 and 9, the examiner notes that the *Ward* case law cited by the examiner is indeed relevant because the methodology of Kolb is similar to the methodology of the present application (as the inventions in *Ward* were similar), but Kolb simply does not disclose the exact distances/lengths or sizes so as to not constitute a patentable difference.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Thursday, 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on (571)-272-6660. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gay Ann Spahn, Patent Examiner  
April 4, 2006



Suzanne Dino Barrett  
Primary Examiner